



CITY OF BERKELEY VISION ZERO ANNUAL REPORT 2020-2021

March 2021

VISION ZERO PROGRAM - CORE STAFF

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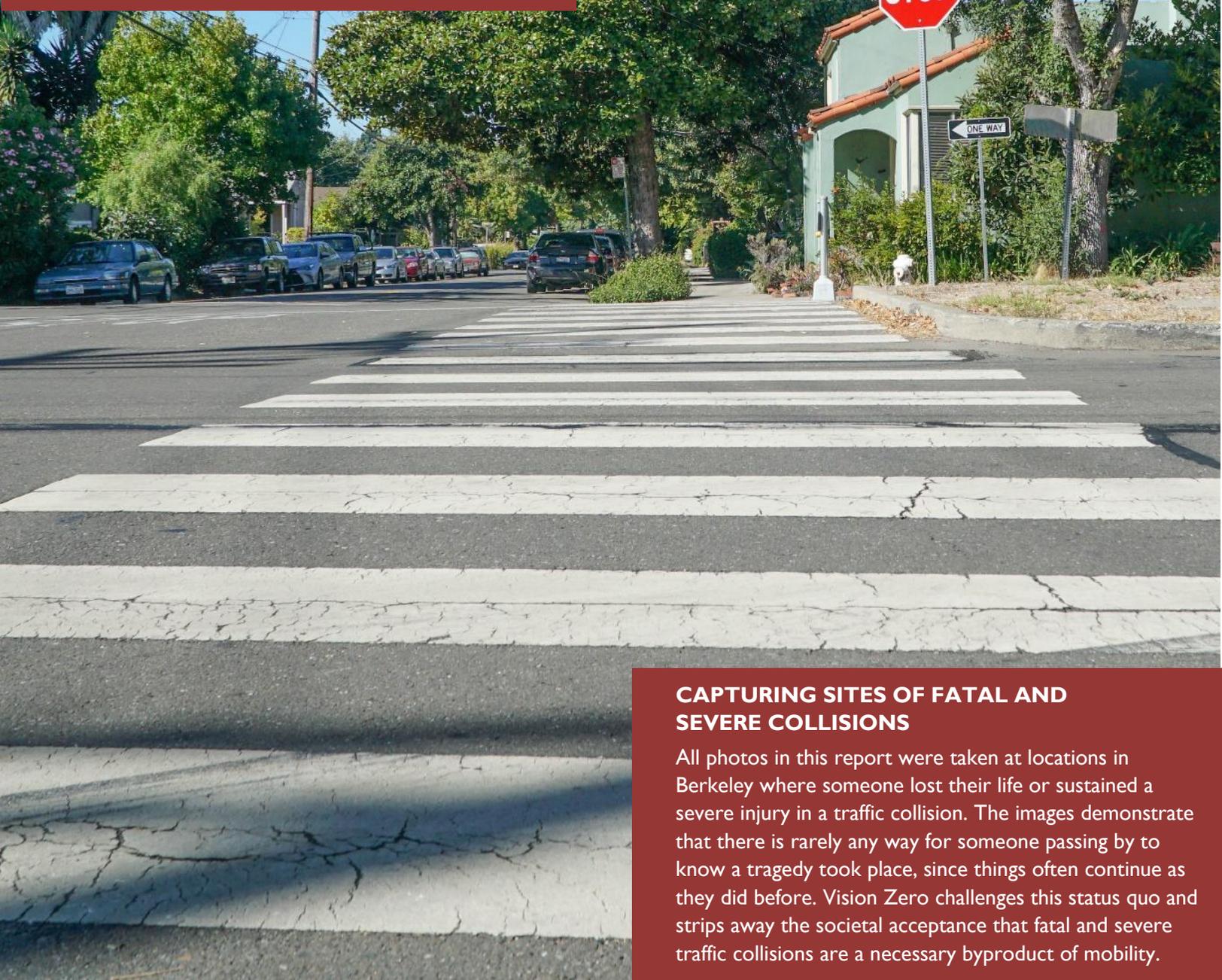
Vision Zero is a “One City One Team” effort. In addition to the staff listed above, City workers in nearly every department, including the City Manager’s Office, Public Works, Health Housing and Community Services, the Berkeley Police Department, the Berkeley Fire Department, and others, play an integral role in achieving our goal of zero deaths and severe injuries on Berkeley streets.

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ABOUT VISION ZERO

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. Vision Zero is, first and foremost, an *engineering* strategy that aims to design and build our streets to eliminate all severe and fatal traffic injuries. These engineering efforts are supported by public awareness education and traffic enforcement. Equity-driven Vision Zero traffic enforcement utilizes the best possible data and is focused on areas of Berkeley where engineering and education efforts have already been implemented.



CAPTURING SITES OF FATAL AND SEVERE COLLISIONS

All photos in this report were taken at locations in Berkeley where someone lost their life or sustained a severe injury in a traffic collision. The images demonstrate that there is rarely any way for someone passing by to know a tragedy took place, since things often continue as they did before. Vision Zero challenges this status quo and strips away the societal acceptance that fatal and severe traffic collisions are a necessary byproduct of mobility.



INTRODUCTION

Every year, an average of three people die and at least 32 people are severely injured in Berkeley due to traffic violence. Vision Zero is about recognizing that these deaths and severe injuries are preventable and unacceptable – no one should lose their life or experience a life-altering injury while traveling on Berkeley streets, no matter who they are or how they travel.

We began our commitment to Vision Zero in 2018 through the adoption of a Vision Zero resolution to end all traffic-related deaths and severe injuries on City streets by 2028. We continued this commitment with the adoption of the Vision Zero Action Plan in 2020. The actions described in the Plan and this Annual Report are motivated by the following Vision Statement and Guiding Principles:

The City of Berkeley is committed to an equity-focused, data-driven effort to eliminate traffic deaths and severe injuries on our city streets by 2028.

1. **Safety is our highest priority.**
2. **Traffic deaths and severe injuries are preventable and unacceptable.**
3. **People make mistakes.**
4. **Slower streets are safer streets.**
5. **We will create safer transportation options for people who walk, bike, and take transit.**
6. **Street safety must be achieved equitably.**
7. **Vision Zero will be accountable, transparent, and data-driven.**

While every action item described in the Plan is fundamental to the success of Vision Zero, the Plan's Priority Actions have been the near-term focus of the Vision Zero Program in Berkeley during the year since adoption of the Plan, and are the focus of this progress report. The full list of actions for the City of Berkeley is shown in **Appendix A: Vision Zero Actions**.





WHY WE NEED VISION ZERO

BERKELEY NEEDS VISION ZERO

Every year, on average three people die and at least 32 people sustain severe injuries on Berkeley streets due to traffic violence. This is unacceptable and preventable – no one should lose their life or suffer a life-altering injury when traveling in our city. All updated traffic crash data in this Annual Report is from the years 2010 to 2019 - the most recent ten years of collision data available through the Statewide Integrated Traffic Records System (SWITRS).

VISION ZERO IS ABOUT THE 2%

On average, 2% of collisions on Berkeley streets result in a fatality or severe injury.

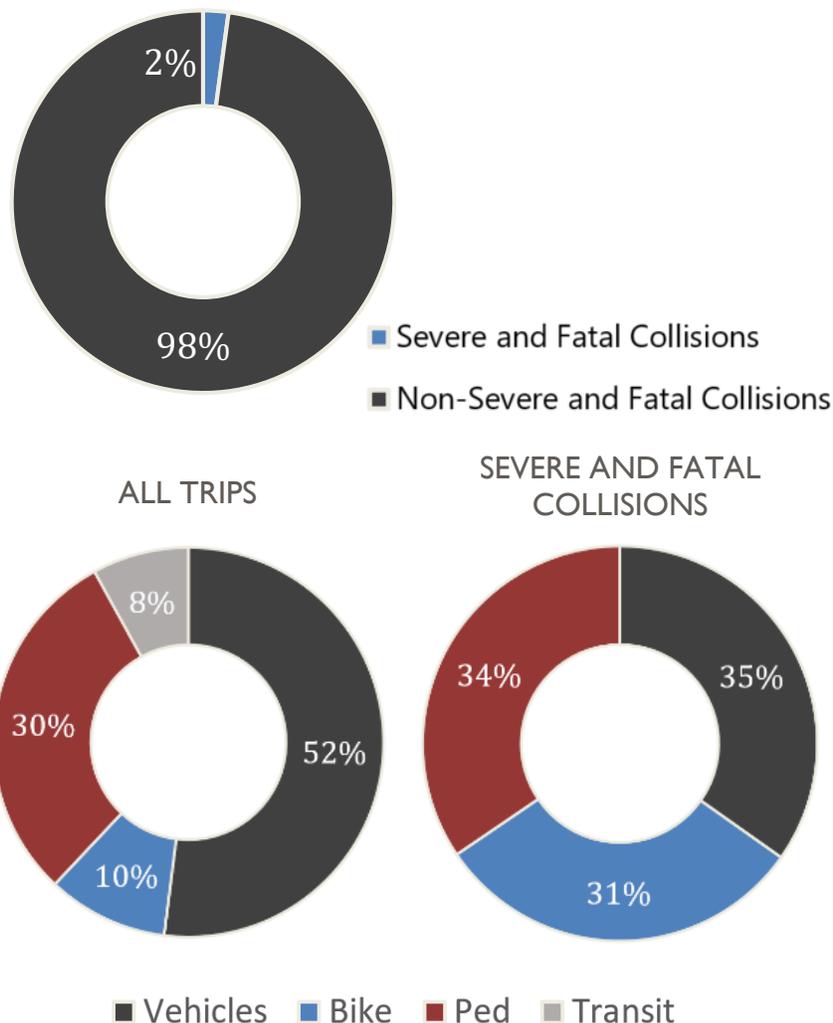
That is 2% too many.

VISION ZERO IS ABOUT MODE

Collisions disproportionately impact people riding bicycles and people walking. The numbers are stark – collisions involving someone riding a bicycle or walking make up almost **65%** of collisions that result in death or severe injury, despite making up just **40%** of trips in Berkeley.

DISPROPORTIONATE BURDEN

We know that people of color, people with no or low income, people with no or limited English proficiency, people experiencing homelessness, youth, seniors, and people with disabilities are over-represented in fatal and severe injury collisions, but we currently have limited data within SWITRS collision reports to understand the magnitude of the disproportionate burden. This plan addresses those data gaps head-on and establishes strategies to start collecting and utilizing more meaningful data to understand inequities on our streets. We also are not waiting for more data to take an equity-driven approach to Vision Zero.



Collision Data: SWITRS ten-year injury collision data, 2010-2019

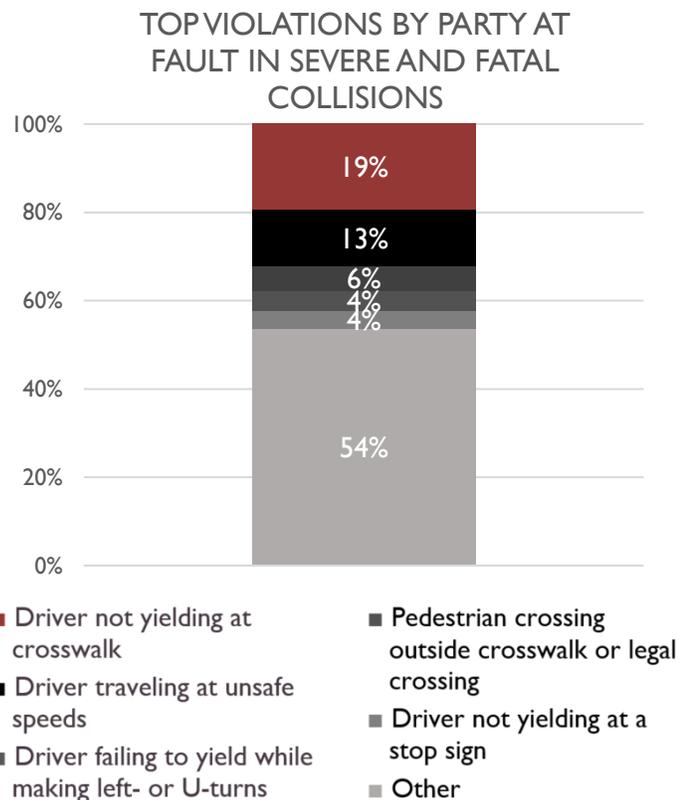
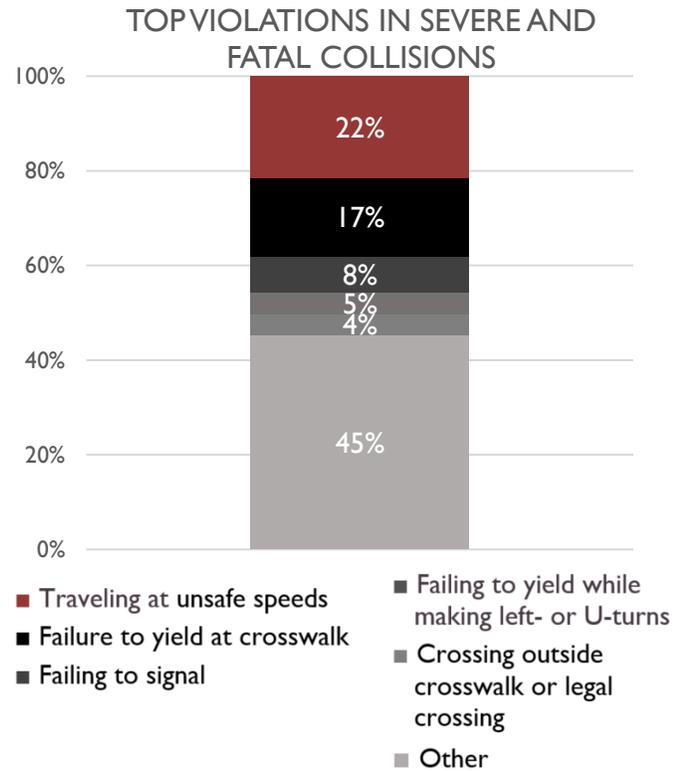
Mode Data: California Household Travel Survey for the City of Berkeley, 2012

VISION ZERO IS ABOUT TRAFFIC VIOLATIONS

Every collision involves multiple factors. The top traffic violations reported during the years 2010 to 2019 for collisions in Berkeley that resulted in death or severe injury were **traveling at unsafe speeds; driver not yielding at crosswalk; failing to signal; failure to yield to oncoming traffic while making left or U-turns; pedestrian crossing outside crosswalk or legal crossing**. Vision Zero focuses on the most significant factors associated with severe and fatal traffic collisions in order to make the greatest impact.

Safety is also about how we share public space and how we interact on our streets. When we consider the primary party at fault, the top traffic violations for severe and fatal vehicle-involved collisions in Berkeley were **drivers not yielding at crosswalks; drivers traveling at unsafe speeds; drivers failing to yield to oncoming traffic when making a left- or U-turn; pedestrian crossing outside crosswalk or legal crossing; and drivers not yielding at stop signs**. While party at fault data is subjective and may not include the victim’s perspective, it can add to our understanding of the unsafe behaviors that result in severe and fatal collisions.

Violation data tables are provided in **Appendix C: SWITRS Violation Code Data Tables**.



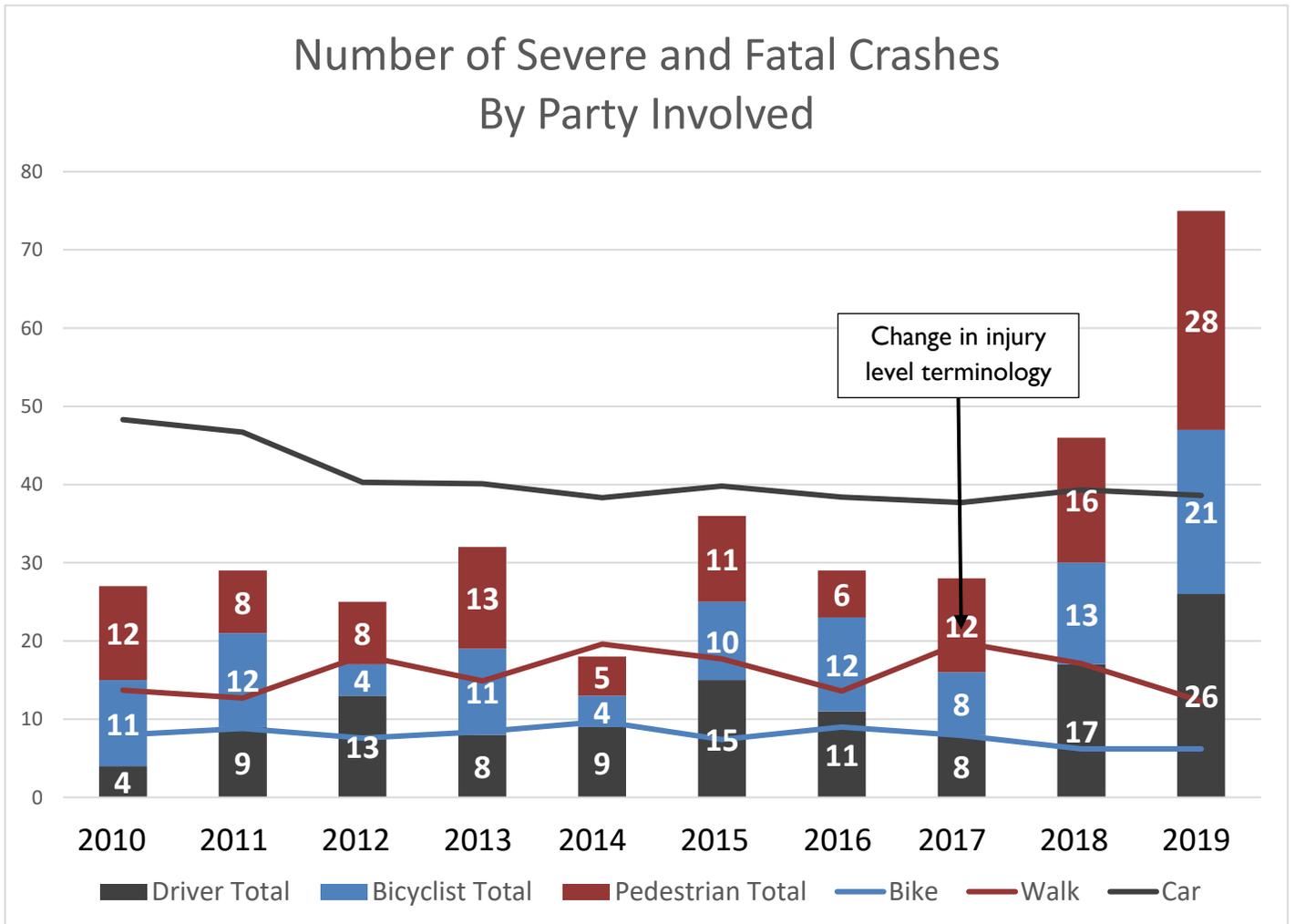
GETTING TO ZERO

Berkeley's Vision Zero goal is to reach zero severe and fatal traffic crashes by the year 2028. To this end, the Berkeley Vision Zero Program tracks severe and fatal traffic crashes year-to-year, utilizing the most recently available 10-year SWITRS dataset. The chart on the next page shows severe and fatal crashes by mode for the last 10 years, along with US Census data "Journey to Work" mode share.

Following a peak in 2015 and an apparent decrease in severe and fatal traffic crashes in 2016 and 2017, beginning in 2018 SWITRS crash data appears to show a substantial increase in severe injury traffic crashes for nearly all modes of transportation in Berkeley. SWITRS is a State of California data clearinghouse that gathers traffic crash data as reported by local police departments using the California Highway Patrol collision report form (CHP 555). Public Works and Berkeley Police Department staff are looking at a variety of data such as changes in mode share (e.g. the number of people walking, biking, driving, or taking public transit or ride-hailing services to work), changes in traffic volumes, or other factors to try to understand this apparent increase in severe injury traffic crashes. As shown by the "Journey to Work" transportation mode share trend lines on the graph, this change does not appear to be correlated with increases in transportation activity. Our preliminary analysis suggests that this apparent increase may be linked to changes in the crash report form (CHP 555) used by officers to record the crash data made available through SWITRS. In 2018, California changed the terminology to describe the extent of injury on the CHP 555 form. This form previously offered the options: FATAL INJURY – SEVERE INJURY – OTHER VISIBLE INJURY – COMPLAINT OF PAIN. It was revised to offer the options: FATAL INJURY – SUSPECTED SERIOUS INJURY – SUSPECTED MINOR INJURY – POSSIBLE INJURY. Previously, officers completing the form were required to make an informed judgement as to whether or not an injury was "severe"; the revised form now requires them to assess whether they merely suspect an injury may be "serious". The change in descriptive terminology from severe to serious and the introduction of the new term "suspected" may have inadvertently lowered the standard for characterizing traffic injuries, leading officers to characterize more injuries as "suspected

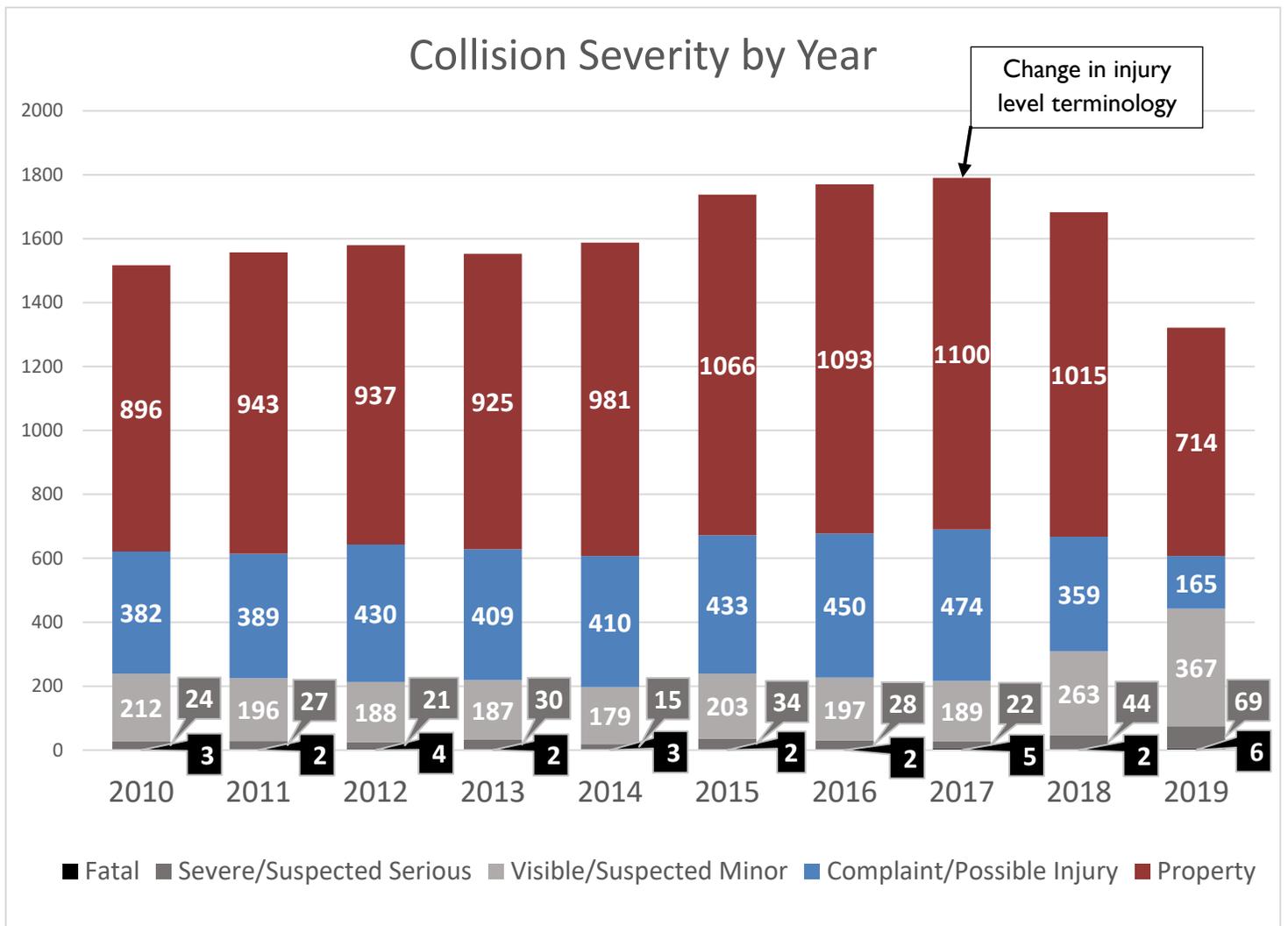


serious" than would have previously been categorized as "severe". As shown on the chart on the following page, the overall number of reported traffic crashes during the 10-year period from 2010-2019 decreased from 2017 to 2019. In absolute numbers, this decrease was mostly in property damage crashes, from a 10-year high of 1100 crashes in 2017 to a 10-year low of 714 crashes in 2019. Importantly, the total number of injury crashes during this period also decreased. Starting in 2017, the total number of injury crashes declined, reaching a 10-year low point of 601 crashes in 2019. During this same time period, while the changes in terminology in the CHP 555 Crash Report form were taking effect, "Possible Injury" crashes (formerly "Complaint of Pain") appeared to decrease dramatically, while "Suspected Minor Injury" (formerly "Visible Injury") and "Suspected Serious Injury" (formerly "Severe Injury") both appeared to increase dramatically. It is possible that some crashes formerly



Collision Data: SWITRS ten-year injury collision data, 2010-2019
 Mode Share Data: UC Census Journey to Work, 2010

classified as Complaint of Pain are now being recorded as Suspected Minor Injury or Suspected Severe Injury. This analysis may lend further support to the idea that apparent trends in crash data since 2017 are at least in part related to changes to the terminology used on the CHP 555. Public Works staff and Berkeley Police Department traffic safety officers are examining this shift in data practices and assessing whether other Bay Area or California transportation agencies and police departments have experienced a similar shift. Staff and officers are discussing potential ways to normalize the collected data, such as providing additional collision report training for traffic officers, and continuing to pursue hospital data from Alameda County Department of Public Health as a way to better understand the outcomes of traffic crashes characterized as "suspected serious injury".



Collision Data: SWITRS ten-year injury collision data, 2010-2019
 Mode Share Data: UC Census Journey to Work, 2010

LOCATIONS OF SEVERE AND FATAL COLLISIONS

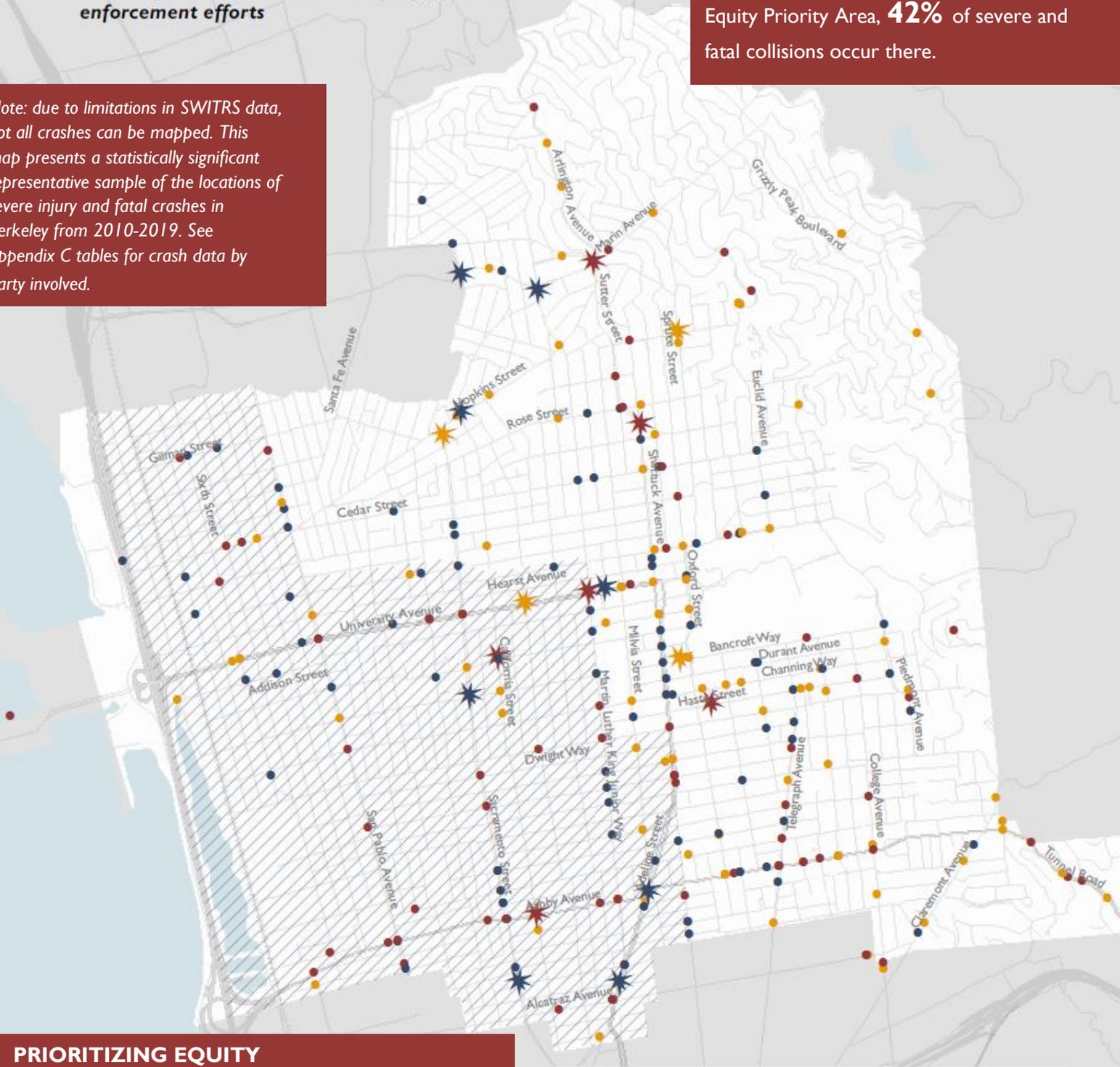
This map is not for use in developing focused enforcement efforts

VISION ZERO IS ABOUT STREETS

This map shows the locations of **277** severe injury and fatality traffic crashes that occurred on Berkeley streets between 2010 and 2019.

Although only **37%** of streets lie in the Equity Priority Area, **42%** of severe and fatal collisions occur there.

Note: due to limitations in SWITRS data, not all crashes can be mapped. This map presents a statistically significant representative sample of the locations of severe injury and fatal crashes in Berkeley from 2010-2019. See Appendix C tables for crash data by party involved.



PRIORITIZING EQUITY

Lower income residents and people of color are disproportionately impacted by the risk of traffic injuries and fatalities. The Equity Priority Area considers historic federal Home Owners' Loan Corporation "redlining" practices, racial/ethnic composition, property value, and cultural centers to guide the City of Berkeley in prioritizing infrastructure projects that remedy systemic inequity. A full description of the Equity Priority Area methodology can be found in the City of Berkeley Pedestrian Plan.

 Equity Priority Area
Collision Type
 Bicycle - Fatal
 Pedestrian - Fatal
 Driver - Fatal
 Bicycle - Severe Injury
 Pedestrian - Severe Injury
 Driver - Severe Injury

Collision Data: SWITRS ten-year injury collision data, 2010-2019

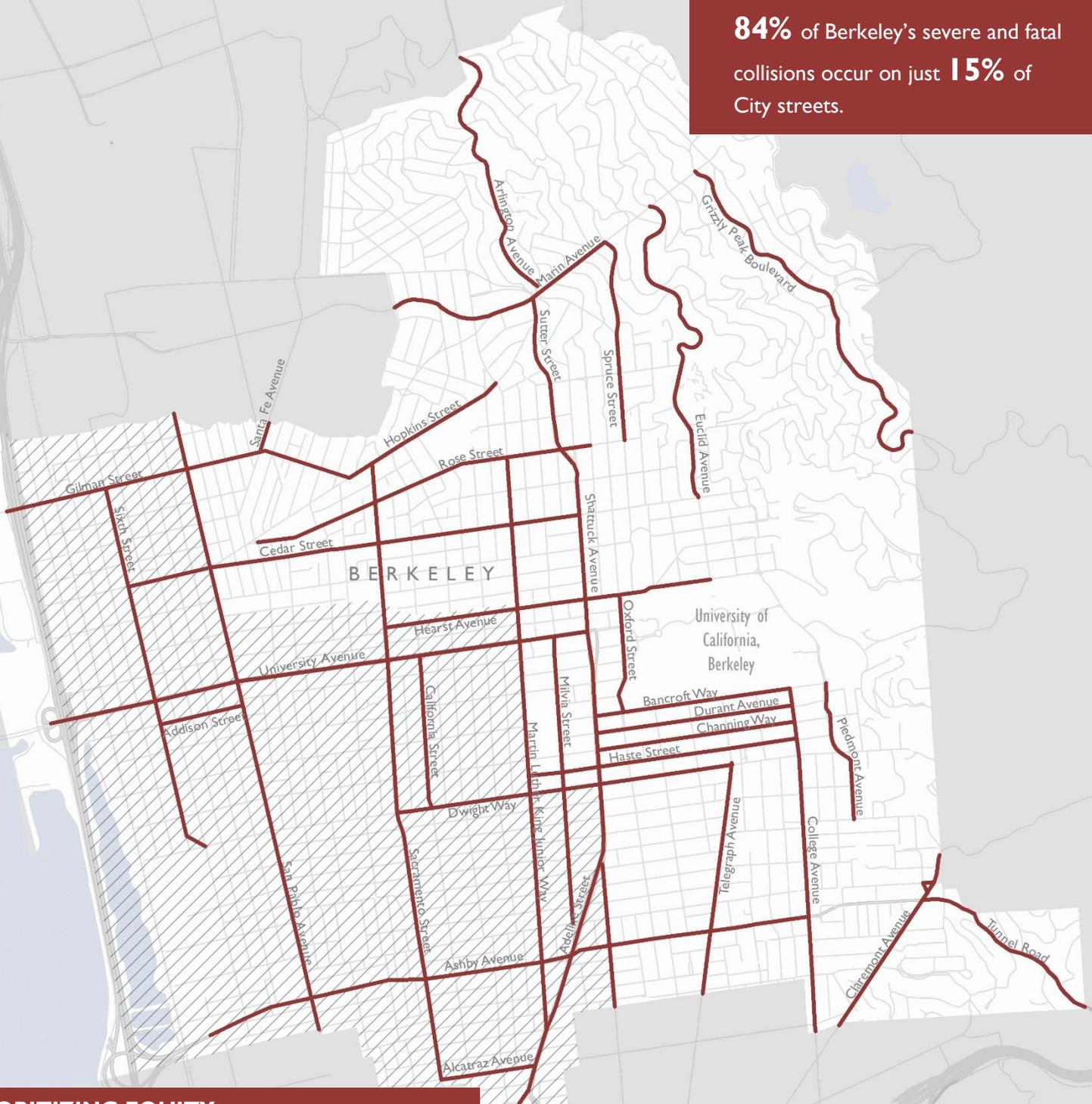
HIGH-INJURY STREETS

This map is not for use in developing focused enforcement efforts

VISION ZERO IS ABOUT STREETS

The High-Injury Streets map represents the City of Berkeley's streets with the most severe injury and fatality crashes based on data between 2010 and 2019.

84% of Berkeley's severe and fatal collisions occur on just **15%** of City streets.



PRIORITIZING EQUITY

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- High-Injury Streets
- /// Equity Priority Area

Collision Data: SWITRS ten-year injury collision data, 2010-2019



TAKING ACTION

PRIORITY ACTIONS – PROGRESS AND PRIORITIES

The Vision Zero Action Plan contains 33 recommended actions, prioritized into the 11 Priority Actions listed below. The Plan was adopted by the Berkeley City Council in March 2020, almost exactly one week before the start of COVID-19 Public Health Shelter in Place orders. Despite the ongoing challenges of this unprecedented public health crisis, the City has made substantial progress on Vision Zero Priority Actions. Please see Appendix A for a complete list and full descriptions of each action.

- **Establish a standing Vision Zero Coordinating Committee:** During COVID-19, existing Commission and Committee meetings were suspended. Formation of a new committee was not possible during this time, and as such this item has been on hold due to COVID-19. As of this writing, limited online-only Commission meetings have been authorized for 2021. As such, the City plans to explore initiating this new Committee in 2021, with special attention given to equity and accessibility in recruitment and retention of members of the Berkeley community to serve on the committee. Formation of this Committee is integral to initiating certain new Vision Zero actions as well as continuing progress on some of the other in-process Vision Zero actions.
- **Conduct a citywide Vision Zero Action Plan assessment, including creating a staffing matrix and establishing a milestone staffing and funding schedule:** During COVID-19, City resources were reprioritized to respond to the public health crisis. As such, a citywide assessment of staffing and resources would not at this time yield results useful for the Vision Zero program in future years. In the meantime, the Department of Public Works has initiated an organizational analysis related to the possible formation of a Berkeley Department of Transportation (BerkDOT). The BerkDOT process is in response to a July 14, 2020 Berkeley City Council referral to the City Manager to “pursue the creation of a Berkeley Department of Transportation (BerkDOT) to ensure a racial justice lens in traffic

What Are “Quick-Build” Projects?

Quick-build is an approach to project delivery that uses less expensive materials to more quickly and more affordably deliver traffic safety projects. Quick-builds are sometimes called “paint and posts” projects for their use of street markings and traffic delineator posts. However, quick-build projects can actually include a much broader, more aesthetically-appealing toolbox of safety measures and design elements that provide a more lasting investment in our neighborhoods, such as colored pavement and more visible crosswalks; concrete pedestrian crossing islands; planter boxes; and even solar-powered streetlights and pedestrian crossing beacons. In the past, Berkeley has used a quick-build approach to incorporate protected bikeways, bus only lanes, or bus boarding islands into repaving projects such as Bancroft Way between Fulton Street and Dana Street, or Adeline Street between Shattuck Avenue and Ashby Avenue. The City recently received a state of California Active Transportation Program Quick-Build grant for Vision Zero pedestrian crossing safety improvements on Martin Luther King Jr. Way between Dwight Way and Russell Street. In 2021 Public Works staff will continue development of a Quick-Build Program, to formalize a design toolbox and accelerate delivery of traffic safety projects from City Council-adopted transportation plans.

enforcement and the development of transportation policy, programs, and infrastructure”. Where appropriate, the City intends to address organizational issues related to Vision Zero through the BerkDOT process, and to address remaining issues through an assessment process following a return to more normal operations following COVID-19, hopefully in 2021 or 2022.

- **Proactively build capital-intensive and quick-build safety projects:** Despite the infrastructural challenges of responding to COVID-19, the City has continued to make substantial progress delivering traffic safety and transportation improvement projects on Vision Zero High-Injury Streets. Among other capital-intensive projects, the Department of Public Works completed construction on the Shattuck Reconfiguration Pedestrian Safety Project, continued construction on the final phase of the 9th Street Bicycle Boulevard Pathway, initiated construction on the Sacramento Complete Streets Project, and as of this writing, is preparing to break ground on the Milvia Bikeway Project. In addition, Public Works continues to approach repaving projects as “Complete Streets”. Recent repaving projects, such as those on 6th Street and Adeline Street, have included construction of the bikeways called for in the Berkeley Bicycle Plan (2017). Recent grant funding successes include awards for pedestrian crossing safety improvements on Martin Luther King Jr. Way, and pedestrian and bicycle crossing safety improvements of various High-Injury Streets as part of California Affordable Housing and Sustainable Communities grants. Public Works has recently submitted Active Transportation Program, Alameda County Transportation Commission Capital Improvement Program, and Highway Traffic Safety Improvement Program grant applications for seven new projects that improve safety along or at crossings of High-Injury Streets in Berkeley. In 2020, Public Works initiated development of a “quick-build” program to formalize the accelerated use of less expensive, less permanent materials to deliver Vision Zero traffic safety projects more quickly and affordably, in order to help meet our 2028 goal of zero traffic deaths and severe injuries. Public Works has continued this effort via peer research and interviews with other Bay Area Vision Zero Program cities. The Quick-Build Program is one of the actions which Public Works staff plans to elevate in priority for 2021, to proactively address safety issues and to strengthen the City’s ability to respond to severe and fatal traffic crashes with quick-build traffic safety interventions. For a summary of capital-intensive and quick-build project progress, please see Appendix B of this report.
- **Request a Vision Zero Performance Audit:** Public Works planned to request an audit of the Vision Zero program at the end of year one of the program, as a companion metric to the staffing and funding assessment described above. However, due to the impacts of the COVID-19 response, this audit request has been delayed pending completion of the assessment and other organizational tasks, potentially later in 2021 or in 2022.
- **Establish a Vision Zero Rapid Response Safety Communication Protocol:** Public Works initiated this task in 2020 via peer research, as part of interviews with other Vision Zero Program staff in Bay Area cities. The Vision Zero Rapid Response Safety Communication Protocol is one of the actions which City staff from multiple departments plan to elevate in priority for 2021, as a communication strategy in response to recent severe and fatal collisions.
- **Support statewide traffic safety legislation:** Public Works initiated this task in 2020 as part of staff advocacy to encourage the Metropolitan Transportation Commission (MTC) to form a Regional Vision Zero Working Group. MTC has formed a Working Group, and as part of this group’s work plan, City staff has asked MTC to leverage the influence of Bay Area communities to influence state

traffic safety legislation. This legislative agenda would include allowing cities to lower the statutory speed limit below the current minimum 25 MPH, and allowing automated traffic enforcement as an equity enforcement strategy. Public Works anticipates continued and ongoing action in 2021 as part of the newly-formed Regional Vision Zero Working Group.

- **Establish a Complete Streets Repaving and Development Project Checklist:** Public Works Transportation Division staff initiated this task in 2020 in partnership with Engineering Division project delivery staff and Planning Department staff. Public Works anticipates completion of this action by mid-2021.
- **Develop and proactively deliver a Vision Zero branding, promotional, and educational campaign:** Public Works staff initiated this task in 2020 and have worked with a consultant to develop preliminary logos and taglines for program branding and preliminary public messaging. The preliminary materials were presented to the Transportation Commission in January 2021. Based on Transportation Commission feedback, before continuing further with the branding and messaging process, Public Works staff plans to seek the input of the Vision Zero Coordinating Committee in 2021, to ensure that all materials are representative of and accessible to all members of the Berkeley community.
- **Develop a publicly accessible matrix and map to prioritize and track projects:** In 2020, Public Works staff initiated development of a preliminary table and map to track capital projects on Vision Zero High-Injury Streets that are part of the City’s Capital Improvement Program. In 2021, staff will continue to refine and expand this table and continue to develop the related interactive “Story Map” to a level of detail and information similar to what has been used for Measure T-1 Infrastructure Bond public engagement. Public Works Staff anticipates working with the Vision Zero Coordinating Committee to ensure these communication tools meet the needs of the Berkeley Community as articulated by Berkeley residents and stakeholders who participated in the Vision Zero Advisory Committee during development of the Action Plan. The “work in progress” project tracking matrix and sample maps shown in Appendix B of this report illustrate the preliminary progress on this action.
- **Utilize the Berkeley Police Department’s collision report data on parties involved:** Public Works staff initiated this task in 2020 as part of Vision Zero Program liaison activities with Berkeley Police Department Traffic Bureau officers to access and better understand Police crash report data. Public Works staff anticipates continuing to work on data reporting and analysis with Traffic Bureau officers in 2021.
- **Focus traffic enforcement efforts proportionately on the most significant traffic violations for severe and fatal collisions by party at fault:** The Vision Zero Action Plan includes tables of crash data organized by “party at fault” to help us better understand which of our transportation behaviors are putting others at risk on our streets. In 2020, following Council adoption of the Plan, Public Works staff provided these tables to Berkeley Police Department Traffic Bureau staff for use in implementing the 2020-2021 California Office of Traffic Safety (OTS) traffic enforcement grant. As part of the OTS-funded traffic enforcement efforts, Traffic Bureau officers have conducted DUI and distracted driving patrols, as well as traffic enforcement patrols focusing on problematic locations and behaviors, including violations identified by Vision Zero crash data analysis, such as excess speed, failure to yield, and failure to stop at stop signs/signals. These enforcement activities have included

both general traffic safety patrols as well as operations focused specifically on pedestrian and bicycle safety. While enforcement activities may engage with anyone walking, biking, or driving on Berkeley streets, due to the nature of the violations these patrols often focus on the Primary Collision Factors (PCFs) where a driver is most often found at fault. The most recent OTS grant was awarded in October 2020. Traffic enforcement operations funded by this grant are anticipated to continue through September 2021. Appendix C of this report updates the Vision Zero Action Plan “party at fault” crash data tables to include the most recent 10 years of SWITRS data. At the time the Draft Vision Zero Action Plan was presented to the Berkeley Transportation Commission on November 21, 2019, Commissioners expressed concern about the Plan’s traffic enforcement actions, based on historical patterns of racialized outcomes of traffic enforcement and other equity concerns. In response to these concerns, Public Works staff recommended that new Vision Zero traffic enforcement efforts be undertaken only after the creation of an equity-driven Vision Zero Enforcement Policy, to be developed in partnership with the Berkeley Police Department and with the guidance of the Vision Zero Coordinating Committee. On July 14, 2020, the Berkeley City Council made a historic commitment to reimagine the City’s approach to public safety with the passage of an omnibus package of referrals, resolutions, and directions, with the goal of achieving a new and transformative model of positive, equitable and community-centered public safety for Berkeley. One component of this ongoing process was the formation of a Reimagining Public Safety Task Force. As such, any new Vision Zero traffic enforcement efforts have been delayed pending formation of the Vision Zero Coordinating Committee and the need to coordinate with the traffic enforcement equity components of the ongoing BerkDOT and Reimagining Public Safety Task Force processes. Public Works staff anticipates working with Traffic Bureau staff to implement new Vision Zero traffic enforcement actions consistent with whatever Vision Zero traffic enforcement policy results from Vision Zero Steering Committee and ongoing organizational and public safety processes.



APPENDICES

APPENDIX A: VISION ZERO ACTIONS

I.1 THE VISION ZERO PROGRAM: COLLABORATION

Priority	Action	Lead Department	Timeline
☆	Establish a standing Vision Zero Coordinating Committee consisting of City staff, Commissioners, partner institutions, members of the community, advocacy groups, and community-based organizations who have a role in advancing Vision Zero action items with quarterly meetings organized around a predetermined annual agenda. Seek to establish a funding source to compensate members of the community and community-based organizations to enable their participation.	City Manager's Office	
	Incorporate Vision Zero goals and actions into plan and policy updates of all departments and partner institutions, including the upcoming City of Berkeley Zoning Ordinance update and General Plan Update, UC Berkeley's Long-Range Development Plan, Berkeley Unified School District's Sustainability Plan, the City's Strategic Plan, Departmental Priority Projects Lists, and departmental and individual staff work plans.	City Manager's Office	
	With the Metropolitan Transportation Commission, Alameda County Transportation Commission, and Alameda County Department of Public Health, establish a peer-to-peer Bay Area Vision Zero Network for information-sharing and collaboration on countywide and regional initiatives such as a public health analysis of collision victim hospital data.	Mayor's Office	
	Develop a focused, strategic Vision Zero staff training plan to send key staff responsible for implementing the Vision Zero Action Plan, such as Public Works, Police, Health, Housing, and Community Services, and City Manager's Office and elected officials, to Vision Zero-related conferences and trainings.	City Manager's Office	

I.2 THE VISION ZERO PROGRAM: CAPACITY

Priority	Action	Lead Department	Timeline
☆	<p>Conduct a citywide Vision Zero Action Plan assessment of existing staffing and funding capacity to complete Vision Zero action items.</p> <ul style="list-style-type: none"> • Create a staffing matrix of existing and proposed staff for the delivery of high-priority Vision Zero action items. New or realigned staff needs are anticipated in the areas listed below: <ul style="list-style-type: none"> ○ Public Works safety project team ○ Public Works Vision Zero Program support staff ○ Public Information Officers in key Vision Zero departments including Police and Health, Housing, and Community Services ○ Berkeley Police Department Vision Zero collision data analysis ○ Health, Housing, and Community Services Vision Zero data analysis and public awareness programs • Establish a milestone staffing and funding schedule to complete high-priority Vision Zero action items, including City and grant funds. 	City Manager's Office; Public Works	
☆	<p>Request a Vision Zero Performance Audit to be conducted during the FY21 audit period to evaluate the implementation of the Action Plan and make any needed recommendations, including additional and/or realigned staffing and funding, for effective Vision Zero Action Plan implementation. Provide required six-month updates to City Council.</p>	Public Works	

I.3 THE VISION ZERO PROGRAM: TRANSPARENCY AND EQUITY

Priority	Action	Lead Department	Timeline
☆	<p>Utilize the Berkeley Police Department’s collision report data on parties involved, such as housing status or whether parties involved are disabled, to help address equity gaps in Statewide Integrated Traffic Records System (SWITRS) collision data. Confirm that Berkeley Police Department report training emphasizes consistent use of these collision report data fields and, if needed, provides training resources for avoiding transportation mode bias in collision reporting. When necessary, update the police collision report form to be consistent with emerging mobility modes.</p>	Public Works; Police	
	<p>Provide an annual Vision Zero Progress Report, reviewed by the City Auditor, to City Council, City Department Directors, Vision Zero Coordinating Committee, and Transportation Commission, on progress reducing fatal and severe collisions, including in historically underserved neighborhoods, equity in traffic enforcement, and on meeting the funding, staffing, and Vision Zero program delivery schedules. Include an updated Vision Zero High-Injury Streets map. Utilize Berkeley Police Department collision data to supplement the Statewide Integrated Traffic Records System dataset to avoid lag in data availability.</p>	Public Works	
	<p>Complete a full update of the Vision Zero Action Plan every three years to ensure continued relevancy of the Action Plan by integrating advancements in best practices and technologies. The first update will include an equity evaluation to identify gaps in safety and collision datasets and develop milestones to address inequities, as well as identify strategies to include hospital data provided by Alameda County Department of Public Health, linked to emergency medical services data and police reports, in Vision Zero analyses and maps.</p>	Public Works	
	<p>Maintain an understanding of the Berkeley community’s perception of safety and personal security. Focus direct public engagement to residents of Berkeley’s historically underserved neighborhoods and other vulnerable users.</p>	Health, Housing, and Community Services	

2.1 SAFER STREETS FOR EVERYONE: PROJECT PLANNING AND DEVELOPMENT

Priority	Action	Lead Department	Timeline
☆	Develop a publicly accessible matrix and map to prioritize and track projects. Prioritize both new/existing requests/referrals and delivery of established infrastructure project lists (e.g., Five Year Repaving Program, BeST Plan, etc.) according to the Vision Zero High-Injury Streets map and equity-driven prioritization from City Council adopted plans such as the Bicycle Plan and forthcoming Pedestrian Plan.	City Manager's Office	
☆	Establish a Complete Streets Repaving and Development Project Checklist to ensure proactive and reactive Vision Zero safety infrastructure for people of all ages and abilities are included with each repaving project and in the conditions of approval for development projects. With the Vision Zero Coordinating Committee, consider establishing an equity-driven approach to prioritizing repaving projects.	Public Works	
	Establish a Vision Zero Rapid Response Safety Project Protocol that utilizes data from the renamed Fatal Accident Investigation Team (FAIT), to identify quick-build projects if engineering countermeasures may effectively improve safety. The protocol should outline a path forward for Public Works staff to be a part of the immediate on-the-ground response to an investigation of severe and fatal collisions.	Public Works; Police	
	Conduct before and after studies of a sample of Vision Zero quick-build projects to evaluate countermeasure effectiveness where existing understanding is insufficient.	Public Works	
	Undertake a Standards of Coverage/Response Time Study to provide a data-driven understanding of how safety improvements impact emergency response times.	Fire	
	Establish a pre-approved toolbox of traffic safety infrastructure design treatment improvements with the Vision Zero Coordinating Committee to streamline the implementation of projects.	Public Works	

2.2 SAFER STREETS FOR EVERYONE: PROJECT DESIGN

Priority	Action	Lead Department	Timeline
	Establish Vision Zero Design Guidelines that consolidate policies and design guidelines from Council-adopted plans such as the Pedestrian Plan, Bicycle Plan, and Complete Streets Policy to guide Berkeley’s street design, traffic, and parking procedures in order to prioritize safety and reduce the incidence of severe and fatal collisions. Ensure revisions and updates are reviewed by the Vision Zero Coordinating Committee to maintain accessibility for people of all ages and abilities.	Public Works	
	Develop Curbside Management Guidelines and incorporate them into the Vision Zero Guidelines to ensure Berkeley addresses safety concerns at the curb due to existing and emerging mobility options.	Public Works	
	Update the Berkeley Municipal Code to be consistent with the Vision Zero Design Guidelines.	Public Works	
	Refine the existing traffic calming toolbox to include design guidelines for all street types, utilizing Council-adopted plans where applicable. Ensure the traffic calming toolbox is reviewed by the Vision Zero Coordinating Committee to streamline the implementation of projects.	Public Works	

2.3 SAFER STREETS FOR EVERYONE: PROJECT DELIVERY

Priority	Action	Lead Department	Timeline
☆	Proactively build capital-intensive and quick-build safety projects on all Vision Zero High-Injury Streets on a schedule to complete such projects by 2028.	Public Works	
	Reactively build newly identified quick-build projects at locations with recent severe and fatal collisions if engineering countermeasures may effectively improve safety, based on Rapid Response Safety Project Protocol.	Public Works	
	Continue to deliver traffic calming projects. Utilize the traffic calming toolbox and evaluate requests based on an equity- and data-driven approach to implementation for both residential and Vision Zero High-Injury Streets. Increase public awareness of the traffic calming program.	Public Works	

3.1 SAFER STREETS BY EVERYONE: PUBLIC AWARENESS

Priority	Action	Lead Department	Timeline
☆	Develop and proactively deliver a Vision Zero branding, promotional, and educational campaign to increase awareness about Vision Zero and the top traffic violations for severe and fatal injuries in Berkeley, elevating victims' stories. Regularly update the campaign to ensure it is context-specific, accessible, and culturally relevant. Collaborate with community-based organizations to distribute material and promote messages and public events that normalize active transportation and transit as healthy and responsible transportation choices.	Health, Housing, and Community Services	
☆	Establish a Vision Zero Rapid Response Safety Communication Protocol. Employ a communication strategy in response to recent severe and fatal collisions aimed at the human element of traffic safety, including health and prevention messaging to the Berkeley community.	Public Works	
	Partner with UC Berkeley, Berkeley City College, and Berkeley Unified School District to distribute targeted Vision Zero messaging for students.	Public Works	
	Integrate Vision Zero traffic safety awareness and education into training for City employees who drive City vehicles or drive while on City business, including Police, Fire, Public Works, and all City departments and divisions.	City Manager's Office	

3.2 SAFER STREETS BY EVERYONE: ENFORCEMENT

Priority	Action	Lead Department	Timeline
☆	Focus traffic enforcement efforts proportionately on the most significant traffic violations for severe and fatal collisions by party at fault. Focus enforcement efforts on areas of Berkeley where engineering and education efforts have already been implemented. Conduct traffic enforcement consistent with the City of Berkeley’s Fair and Impartial Policing Policy.	Police	
☆	Support state-wide traffic safety legislation allowing automated speed enforcement by local agencies, designation of speed limits on local streets based on desired safety outcomes rather than the existing prevailing speed, and the reduction of local residential street speed limits to below 25 MPH, which would allow for 20 MPH speed limit on local residential streets, consistent with “20 Is Plenty” campaigns. Utilize existing legislated automated enforcement strategies, such as red light cameras.	City Manager’s Office	
	Rename the Fatal Accident Investigation Team to replace the word “accident” with “collision” and include reference to near-fatal and major collisions, to acknowledge that most collisions are preventable, and to be in line with Vision Zero philosophies.	Police	
	Continue and regularly update a collision data-driven enforcement strategy focusing on collision reports from the renamed Fatal Accident Investigation Team (FAIT) to supplement collision data from SWITRS. Focus on areas of Berkeley where engineering and education efforts have already been implemented. Conduct traffic enforcement consistent with the City of Berkeley’s Fair and Impartial Policing policy.	Police	
	Seek opportunities to educate before issuing citations during traffic enforcement.	Police	
	Develop a traffic ticket diversion program for bicycle and pedestrian traffic tickets to promote access to bicycle and pedestrian safety courses and programs.	Police	

APPENDIX B: VISION ZERO HIGH-INJURY STREETS CAPITAL PROJECTS PROGRESS

Vision Zero High-Injury Street Corridor Projects - March 2021 (work in progress)

High-Injury Streets Projects	Status	Complete Date	Location	Description
6th Street				
6th Street Bike Lane	Completed	2019	6th St between Allston and Channing	Installation of Class 2 bikeway with green color
Adeline Street				
Adeline Protected Bikeway	Completed	2020	Adeline from Shattuck to Ashby	Class IV protected bikeway
Adeline Crossing Improvements	Funded	2023	Adeline/Russell & Adeline/Woolsey intersections	Installation of Pedestrian Hybrid Beacons
Harmon Street RRFB	Completed	2012	Harmon/Adeline	Installation of Rectangular Rapid Flashing Beacons and advance yield lines
Ashby BART/Ed Roberts Campus RRFB	Completed	2011	Adeline at Ed Roberts Campus	Installation of Rectangular Rapid Flashing Beacons and advance yield lines
Alcatraz Avenue				
King Street RRFB	Completed	2012	King and Alcatraz	Installation of Rectangular Rapid Flashing Beacons and advance yield lines
Ashby Avenue				
9th St Pathway Crossing	Under Construction	2021	9th/Ashby	Installation of shared use pathway crossing

High-Injury Streets Projects	Status	Complete Date	Location	Description
Malcolm X Elementary Safe Routes to School Project	Completed	2012	Ashby/Ellis intersection	Installation of Rectangular Rapid Flashing Beacons and advance yield lines
Woolsey-Prince Bike Blvd (alternative route to Ashby)	Funded	2023	Woolsey from Adeline to Wheeler, Wheeler from Woolsey to Prince, Prince from Wheeler to Fulton	Bicycle Boulevard pavement markings and traffic calming features
Hillegass Bicycle Boulevard Crossing	Completed	2018	Hillegass/Ashby	Pedestrian Hybrid Beacon
Bancroft Way				
Bancroft Protected Bikeway	Completed	2017	Bancroft from Dana to Fulton	Class IV two-way protected bikeway
California Street				
Addison Bike Boulevard project: California St traffic diverter	In Design	2021	Addison/California intersection	Installation of a traffic diverter to reduce the motor traffic volume
Cedar Street				
Cedar/9th Crossing Improvement	Under Construction	2020	Cedar/9th intersection	Installation of a pedestrian and bicyclist refuge median
Stannage & Curtis Traffic Calming	Completed	2015	Stannage/Cedar, Curtis/Cedar	Installation of bulbouts as part of repaving project
College Ave				

High-Injury Streets Projects	Status	Complete Date	Location	Description
Emerson Elementary Safe Routes to School	Completed	2016	College/Garber intersection	RRFB and advance yield lines
Claremont Ave				
John Muir Safe Routes to School	Completed	2019	Claremont Ave/Claremont Crescent intersection	RRFBs, signs, curb bulb-outs, and better pedestrian lighting.
Fulton Street				
Fulton Protected Bikeway	Partially Completed	2016	Fulton from Bancroft to Channing	Class IV protected bikeway (southbound)
Hearst Avenue				
Hearst Bikeway	Completed	2017	Hearst from Milvia to Euclid	Class IV protected bikeway and Class II bike lanes
Hopkins Street				
King Middle School Safe Routes to School	Completed	2018	The Alameda/Hopkins intersection	Install two ped refuge islands and four full-comer bulbouts incl. signs, striping, curb painting; eight pedestrian push buttons (two per comer); add actuated walk phase to signal
Martin Luther King Jr. Way				
Addison Bike Boulevard project: MLK Crossing	In Design	2021	MLK/Addison intersection	Installation of a pedestrian and bicyclist refuge median

High-Injury Streets Projects	Status	Complete Date	Location	Description
Martin Luther King Jr. Way Quick Build	Funded	2022	MLK from Dwight to Russell	Red curb, stop bars and advance yield lines, median refuge islands with pole mounted rectangular rapid flashing beacons, installing hardened centerlines, solar-powered pedestrian lighting, rectangular rapid flashing beacons, and pavement markings.
Milvia				
Milvia Protected Bikeway	In Design	2021	Milvia from Hearst to Blake	Construction of a Class IV protected bikeway and pedestrian and bicyclist intersection crossing improvements
Sacramento Street				
Sacramento Complete Streets	Under Construction	2021	Sacramento from Virginia to Addison	Sacramento Street:- Virginia: reconstruct three corners, two refuge islands, install pedestrian hybrid beacon, advance warning signs, yield teeth, bike box- Delaware: reconstruct three corners, intersection markings, advance stop
San Pablo Ave				
9th St Pathway (alternative route to San Pablo Ave - west side)	Under Construction	2021	Between the 9th Street Bicycle Boulevard (south of Heinz Avenue) and Murray Street	Installation of a shared-use path to connect existing bicycle boulevard to existing trail.
Mabel-Bonar Bike Boulevard (alternative route to San Pablo Ave - east side)	Funded	2023	Mabel from Parker to Dwight Bonar from Dwight to Bancroft	Bicycle Boulevard pavement markings and traffic calming features

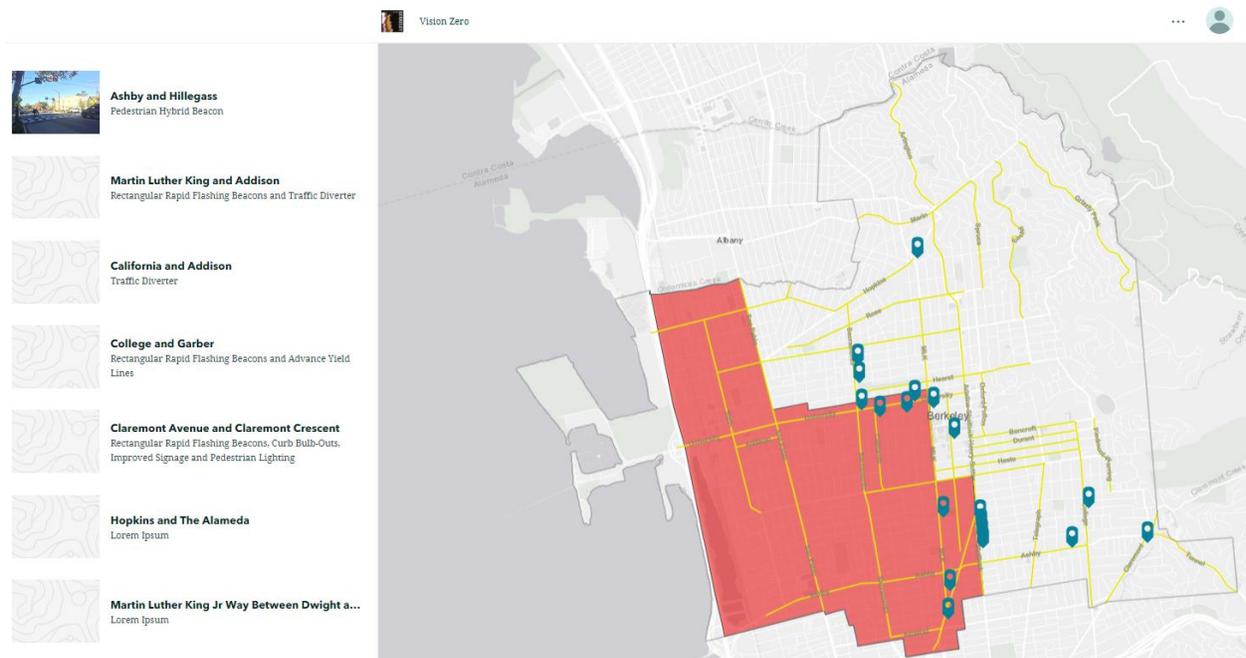
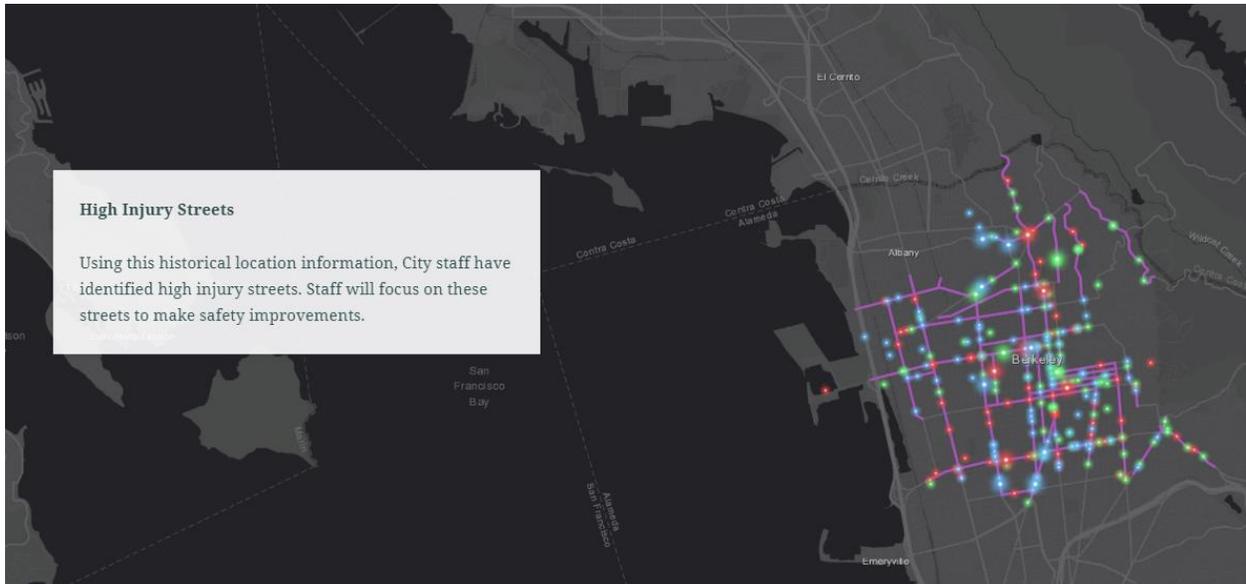
High-Injury Streets Projects	Status	Complete Date	Location	Description
Sacramento Street				
Oregon RRFB and median	Completed	2019	Sacramento/Oregon	Installation of RRFB and widening of median island to provide pedestrian crossing refuge
Santa Fe Avenue				
Santa Fe/Ohlone Greenway Quick-Build Bulbouts	Under Construction	2021	Santa Fe/Ohlone Greenway intersection	Installation of quick-build traffic "chokers" (that bulb out into the shoulder of the street) in order to shorten the bicyclist and pedestrian crossing distance, improve sightlines, and slow Santa Fe traffic
Shattuck Ave				
Berkeley Arts Magnet Safe Routes to School Project	Completed	2012	Shattuck/Virginia intersection	Installation of corner curb extensions, crosswalk marking improvements, and rectangular rapid flashing beacons
Sylvia Mendez Safe Routes to School	Completed	2016	Bulbouts: Shattuck/Ward, Shattuck/Stuart, Shattuck/Russell RRFB: Shattuck/Oregon	Construct eight curb bulbouts; Post pedestrian warning sign and in-pavement pedestrian yield sign; and Stripe red curb parking restrictions.
Shattuck Reconfiguration	Completed	2020	Shattuck/University Shattuck/Center	Reconfiguration of Shattuck Avenue to greatly reduce volume of traffic turning right from westbound University Avenue to northbound Shattuck in conflict with crossing pedestrians Raised intersection at Shattuck/Center

High-Injury Streets Projects	Status	Complete Date	Location	Description
Shattuck Crossing Improvements	Funded	2023	Shattuck/Russell & Shattuck/Woolsey intersections	Installation of Rectangular Rapid Flashing Beacons and corner curb extensions
Fulton Bike Boulevard (alternative route to Shattuck)	Funded	2023	Fulton from Prince to Dwight	Bicycle Boulevard pavement markings and traffic calming features
University Ave				
Rosa Parks Elementary Safe Routes to School Project	Completed	2012	University/7th and University/8th intersections	Installation of high-visibility crosswalks and construction of pedestrian refuge medians (at 7th) and corner curb extensions (at 8th)
University Ave Bus Stops	In Design	2021	University/Sacramento University/Grant	Sidewalk bulbouts at bus stops on the northeast corner of University/Sacramento Street intersection and on the northwest corner of the University/Grant intersection RRFB and advance yield lines for pedestrian crossings of University Ave at Grant
Addison Bike Boulevard (alternative route to University Ave)	In Design	2021	Addison from Sacramento St to Milvia	Bicycle Boulevard pavement markings and traffic calming features

Vision Zero High-Injury Street Corridor Projects - March 2021 (sample “Story Maps” – work in progress)

The work in progress Vision Zero “Story Map” can be viewed here:

<https://storymaps.arcgis.com/stories/13fc2f8a4eb548c68ca57a099b33b8cd>



APPENDIX C: SWITRS VIOLATION CODE DATA TABLES

Cited California Vehicle Code Violation by Party at Fault¹

Cited California Vehicle Code Violation	Party Cited as at Fault						
California Vehicle Code Summary	Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	None cited	Total
Unsafe speed	43	0	0	30	0	1	74
Driver not yielding at crosswalk	56	0	0	0	0	1	57
No Violation Cited	8	2	0	6	0	18	34
Failing to signal	15	0	0	11	0	0	26
Failure to yield to oncoming traffic when making a left turn or U-turn	16	0	0	0	0	0	16
Pedestrian crossing outside crosswalk or legal crossing	2	13	0	0	0	0	15
Driver not yielding at stop sign	12	0	0	1	0	0	13
Driving under the influence	13	0	0	0	0	0	13
Driving under the influence	11	0	0	0	0	0	11
Failure to drive in a single lane	10	0	0	0	0	0	10
Failure to yield to oncoming traffic when entering or crossing road from property or alley	6	0	0	4	0	0	10
Driver not stopping at line	4	0	0	5	0	0	9
Opening door in unsafe conditions	5	0	1	0	1	0	7
Pedestrian suddenly leaving curb	0	6	0	0	0	0	6
Other	6	0	0	0	0	0	6
Pedestrian had flashing DON'T WALK	0	5	0	0	0	0	5
Unsafe backing of vehicle	4	0	0	0	0	0	4
Failure to stop at stop bar	0	0	0	4	0	0	4
Driver passes unsafely	3	0	0	0	0	0	3
Pedestrian crossing between signalized intersections	0	2	0	0	0	0	2
Driving with 0.04% or more alcohol in blood with a passenger for hire in the vehicle	2	0	0	0	0	0	2
Bicyclist has same rights and subject to same rules as motor vehicles	0	0	0	1	0	0	1

Cited California Vehicle Code Violation	Party Cited as at Fault						
California Vehicle Code Summary	Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	None cited	Total
Driver did not proceed straight or yield properly	1	0	0	0	0	0	1
Driver not yielding to pedestrians during right turn on red	0	1	0	0	0	0	1
Driver crossing double parallel solid yellow lines	0	0	0	1	0	0	1
Driving on the left-hand side of an intermittent barrier dividing opposing traffic	1	0	0	0	0	0	1
Failure to drive in a single lane	1	0	0	0	0	0	1
Unsafe following of another vehicle	1	0	0	0	0	0	1
Pass on the left with a safe distance	1	0	0	0	0	0	1
Driver passes bicyclist unsafely	1	0	0	0	0	0	1
At intersection, yield to vehicles already in the intersection	1	0	0	0	0	0	1
Driver did not slow down or exercise due care when approaching pedestrian in crosswalk	1	0	0	0	0	0	1
Driver overtaking a stopped vehicle at crosswalk	0	1	0	0	0	0	1
Driver disobeys traffic control device	1	0	0	0	0	0	1
Making a U-turn with a vehicle approaching from another direction	1	0	0	0	0	0	1
Reckless driving causing bodily injury	1	0	0	0	0	0	1
Driving under the influence of a drug	1	0	0	0	0	0	1
Driving a vehicle in an unsafe condition or not safely loaded	1	0	0	0	0	0	1
<i>Total</i>	218	29	1	63	1	20	344

Notes:

1. SWITRS ten-year severe and fatal injury collision data, 2010-2019

Cited CA Vehicle Code Violations by Parties Involved in Severe and Fatal Collisions¹

Violation by Party at Fault for Severe or Fatal Collisions		Total # of Severe or Fatal Collisions ³	Other Parties Involved ²					
Cited Party at Fault	California Vehicle Code Summary		Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Crashes
Driver	Driver not yielding at crosswalk	56	1	60	0	0	0	0
Driver	Unsafe speed	37	29	8	7	4	2	6
-	Not Cited	18	16	3	3	13	0	0
Driver	Failure to yield to oncoming traffic when making a left turn or U-turn	16	12	0	1	4	0	0
Pedestrian	Pedestrian crossing outside crosswalk or legal crossing	13	14	0	0	0	0	0
Driver	Driver not yielding at stop sign	12	9	1	0	2	0	0
Bicyclist	Unsafe speed	11	8	0	2	1	0	19
Driver	Failing to signal	10	6	0	3	2	0	5
Driver	Failure to drive in a single lane	9	12	0	0	0	0	1
Driver	Driving under the influence	9	6	5	0	0	0	2
Driver	Driving under the influence	8	10	2	6	0	0	5
Driver	Not Cited	7	3	3	0	1	0	1
Driver	Other	7	5	5	3	2	0	0
Driver	Failure to yield to oncoming traffic when entering or crossing road from property or alley	6	4	0	0	3	0	0
Pedestrian	Pedestrian suddenly leaving curb	6	6	0	0	0	0	0
Bicyclist	Driver not stopping at line	5	4	0	0	0	1	0
Pedestrian	Pedestrian had flashing DON'T WALK	5	5	0	0	0	0	0
Bicyclist	Failing to signal	5	5	0	1	0	0	6

Violation by Party at Fault for Severe or Fatal Collisions		Total # of Severe or Fatal Collisions ³	Other Parties Involved ²					
Cited Party at Fault	California Vehicle Code Summary		Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Crashes
Driver	Opening door in unsafe conditions	5	0	0	0	5	0	0
Driver	Driver not stopping at line	4	2	1	0	1	0	0
Bicyclist	Failure to yield to oncoming traffic when entering or crossing road from property or alley	4	4	0	0	0	0	0
Bicyclist	Failure to stop at stop bar	4	4	0	0	0	0	0
Driver	Unsafe backing of vehicle	3	0	3	0	0	0	1
Pedestrian	Not Cited	2	2	0	0	0	0	0
Driver	Driver passes unsafely	2	2	0	0	0	0	1
Driver	Pedestrian crossing outside crosswalk or legal crossing	2	1	2	0	0	0	0
Pedestrian	Pedestrian crossing between signalized intersections	2	2	0	0	0	0	0
Driver	Driving with 0.04% or more alcohol in blood with a passenger for hire in the vehicle	2	0	1	0	1	0	0
Bicyclist	Bicyclist has same rights and subject to same rules as motor vehicles	1	1	0	0	0	0	0
Driver	Driver did not proceed straight or yield properly	1	1	0	0	0	0	0
Pedestrian	Driver not yielding to pedestrians during right turn on red	1	0	0	0	1	0	0
Bicyclist	Driver crossing double parallel solid yellow lines	1	1	0	0	0	0	0
Driver	Failure to drive in a single lane	1	1	0	0	0	0	0
Driver	Unsafe following of another vehicle	1	2	0	0	0	0	0

Violation by Party at Fault for Severe or Fatal Collisions		Total # of Severe or Fatal Collisions ³	Other Parties Involved ²					
Cited Party at Fault	California Vehicle Code Summary		Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Crashes
Driver	Pass on the left with a safe distance	1	0	0	0	1	0	0
Driver	Driver passes bicyclist unsafely	1	0	0	0	1	0	0
Driver	At intersection, yield to vehicles already in the intersection	1	0	0	0	1	0	0
Bicyclist	Driver not yielding at stop sign	1	1	0	0	0	0	0
-	Failure to yield at crosswalk or pedestrian walking into vehicle path	1	1	1	0	0	0	0
Driver	Driver did not slow down or exercise due care when approaching pedestrian in crosswalk	1	0	1	0	0	0	0
Pedestrian	Driver overtaking a stopped vehicle at crosswalk	1	1	0	0	0	0	0
Driver	Driver disobeys traffic control device	1	1	0	0	0	0	0
Driver	Making a U-turn with a vehicle approaching from another direction	1	1	0	0	0	0	0
Parked Vehicle	Opening door in unsafe conditions	1	0	0	0	1	0	0
Other	Opening door in unsafe conditions	1	0	0	0	1	0	0
Driver	Reckless driving causing bodily injury	1	1	1	0	0	0	0
Driver	Driving under the influence of a drug	1	1	0	0	0	0	0
Driver	Driving on the left-hand side of an intermittent barrier dividing opposing traffic	0	0	0	0	0	0	1
Driver	Driving a vehicle in an unsafe condition or not safely loaded	0	0	0	0	0	0	1

Violation by Party at Fault for Severe or Fatal Collisions		Total # of Severe or Fatal Collisions ³	Other Parties Involved ²					
Cited Party at Fault	California Vehicle Code Summary		Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Crashes
Bicyclist	Not Cited	0	0	0	0	0	0	6
	Total	289	185	97	26	45	3	55

Notes:

1. SWITRS ten-year severe and fatal injury collision data, 2010-2019

2. Parties involved will not sum to total number of collisions

3. This number excludes solo collisions. To understand the total number of severe or fatal collisions, sum this column with the number of solo collisions.